

347—110.5(88,89B) Material safety data sheets.

110.5(1) Chemical manufacturers and importers shall obtain or develop a material safety data sheet for each hazardous chemical they produce or import.

110.5(2) Each material safety data sheet shall be in English and shall contain at least the following information:

- a.* The identity used on the label, and except as provided for in rule 110.6(88,89B) on trade secrets:
 - (1) If the hazardous chemical is a single substance, its chemical and common name(s);
 - (2) If the hazardous chemical is a mixture which has been tested as a whole to determine its hazards, the chemical and common name(s) of the ingredients which contribute to these known hazards, and the common name(s) of the mixture itself; or
 - (3) If the hazardous chemical is a mixture which has not been tested as a whole:
 1. The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise 1 percent or greater of the composition, except that chemicals identified as carcinogens under subrule 110.3(4) shall be listed if the concentrations are 0.1 percent or greater; and
 2. The chemical and common name(s) of all ingredients which have been determined to be health hazards, and which comprise less than 1 percent (0.1 percent for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed an established division's (OSHA) permissible exposure limit or ACGIH Threshold Limit Value, or could present a health hazard to employees; and
 3. The chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture;
- b.* Physical and chemical characteristics of the hazardous chemical (such as vapor pressure, flash point);
- c.* The physical hazards of the hazardous chemical, including the potential for fire, explosion, and reactivity;
- d.* The health hazards of the hazardous chemical, including signs and symptoms of exposure, and any medical conditions which are generally recognized as being aggravated by exposure to the chemical;
- e.* The primary route(s) of entry;
- f.* The division's (OSHA) permissible exposure limit, ACGIH Threshold Limit Value (1985-1986), and any other exposure limit used or recommended by the chemical manufacturer, importer, or employer preparing the material safety data sheet, where available;
- g.* Whether the hazardous chemical is listed in the National Toxicology Program (NTP) "Annual Report on Carcinogens" (1982) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) "Monographs" (1982), or by the division;
- h.* Any generally applicable precautions for safe handling and use which are known to the chemical manufacturer, importer or employer preparing the material safety data sheet, including appropriate hygienic practices, protective measures during repair and maintenance of contaminated equipment, and procedures for cleanup of spills and leaks;
- i.* Any generally applicable control measures which are known to the chemical manufacturer, importer, or employer preparing the material safety data sheet, such as appropriate engineering controls, work practices, or personal protective equipment;
- j.* Emergency and first-aid procedures;
- k.* The date of preparation of the material safety data sheet or the last change to it; and
- l.* The name, address and telephone number of the chemical manufacturer, importer, employer, or other responsible party preparing or distributing the material safety data sheet, who can provide additional information on the hazardous chemical and appropriate emergency procedures, if necessary.

110.5(3) If no relevant information is found for any given category on the material safety data sheet, the chemical manufacturer, importer, or employer preparing the material safety data sheet shall mark it to indicate that no applicable information was found.

110.5(4) Where complex mixtures have similar hazards and contents (i.e., the chemical ingredients are essentially the same, but the specific composition varies from mixture to mixture), the chemical

manufacturer, importer, or employer may prepare one material safety data sheet to apply to all of these similar mixtures.

110.5(5) The chemical manufacturer, importer, or employer preparing the material safety data sheet shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination. If the chemical manufacturer, importer, or employer preparing the material safety data sheet becomes newly aware of any significant information regarding the hazards of a chemical, or ways to protect against the hazards, this new information shall be added to the material safety data sheet within three months. If the chemical is not currently being produced or imported the chemical manufacturer or importer shall add the information to the material safety data sheet before the chemical is introduced into the workplace again.

110.5(6) Chemical manufacturers or importers shall ensure that distributors and employers are provided an appropriate material safety data sheet with their initial shipment, and with the first shipment after a material safety data sheet is updated. The chemical manufacturer or importer shall either provide material safety data sheets with the shipped containers or send them to the employer prior to or at the time of the shipment. If the material safety data sheet is not provided with the shipment that has been labeled as a hazardous chemical, the employer shall obtain one from the chemical manufacturer, importer, or distributor as soon as possible.

110.5(7) Distributors shall ensure that material safety data sheets, and updated information, are provided to other distributors and employers. Retail distributors which sell hazardous chemicals to commercial customers shall provide a material safety data sheet to the employers upon request, and shall post a sign or otherwise inform them that a material safety data sheet is available. Chemical manufacturers, importers, and distributors need not provide material safety data sheets to retail distributors which have informed them that the retail distributor does not sell the product to commercial customers or open the sealed container to use it in their own workplaces.